



Our Reference: UMJ-102-B (UM1544p1)

PATENT

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No

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Curtis L. Munson & Ralph T. Yang
Serial Number: 09/632,891
Filing Date: August 7, 2000
Examiner/Art Group Unit: Tam M. Nguyen/1764
Title: SULFUR RESISTANT ADSORBENTS

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TC 1700

COMMUNICATION

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

The Office Action dated April 8, 2002 has been received and carefully reviewed. Please reconsider the above-identified patent application in light of the present communication. Entry of this Communication is respectfully requested.

In the Claims:

1. (Twice Amended) A method of separating gaseous alkene selected from the group consisting of ethylene, propylene and mixtures thereof, from a gaseous mixture including the alkene and hydrogen sulfide, the method comprising the steps of:

contacting the gaseous mixture with an adsorbent which preferentially adsorbs the alkene, at a selected temperature and pressure, thereby producing a non-adsorbed component and an alkene-rich adsorbed component; the adsorbent comprising a carrier having a surface area, the carrier having a monolayer of a silver compound dispersed on substantially the entire surface area, the silver compound releasably retaining the alkene; and the carrier comprising a plurality of pores having a pore size greater than the effective molecular diameter of the alkene; and

changing at least one of the pressure and temperature to thereby release the alkene-rich component from the adsorbent;